



USDA Foreign Agricultural Service

# GAIN Report

Global Agriculture Information Network

Template Version 2.07

Required Report - public distribution

**Date:** 08/16/2004

**GAIN Report Number:** TW4034

## Taiwan

## Livestock and Products

## Annual

## 2004

**Approved by:**

Scott Sindelar

American Institute in Taiwan

**Prepared by:**

Rosemary Kao & Eric Trachtenberg

---

**Report Highlights:**

The discovery of BSE in the U.S. in December 2003 continues to dramatically affect the Taiwan beef market. Beef consumption in 2004 is expected to fall by 17 percent to 63,200 mt (86,000 mt CWE), reversing steady increases since 2001. At the same time, the ongoing outbreak of Porcine Circovirus (PCV) continues to depress local swine production, keeping local pork prices high and stimulating pork meat imports, which will reach 78,000 tons (CWE) in 2004. Imports of other meat products such as offals are expected to increase.

---

Includes PSD Changes: Yes

Includes Trade Matrix: No

Annual Report

Taipei [TW1]

[TW]

**Table of Contents**

<b>Executive Summary .....</b>	<b>3</b>
<b>Beef.....</b>	<b>4</b>
<b>Production .....</b>	<b>5</b>
<b>Consumption.....</b>	<b>5</b>
<b>Trade.....</b>	<b>5</b>
Beef Variety Meats.....	6
Tariffs & Trade Policy.....	7
The Dairy Sector .....	8
<b>Marketing .....</b>	<b>8</b>
<b>Swine .....</b>	<b>10</b>
<b>Production .....</b>	<b>12</b>
Long-term Trends .....	13
Prices.....	14
Feeder pigs .....	15
<b>Consumption.....</b>	<b>15</b>
<b>Trade.....</b>	<b>15</b>
Products Entering Under TRQs .....	16
<b>Policy .....</b>	<b>18</b>
TRQ Regulations.....	18
Non-TRQ Duties .....	19
Special Safeguards .....	19
Sanitary Regulations .....	20
Cross-Straits Trade and Investment .....	20
<b>Marketing .....</b>	<b>20</b>
<b>Internet Resources.....</b>	<b>21</b>

## Executive Summary

The discovery of Bovine Spongiform Encephalopathy (BSE) in the U.S. in December 2003 continues to dramatically affect the Taiwan beef market. Beef consumption in 2004 is expected to fall by 17 percent to 63,200 mt (86,000 mt CWE), reversing steady increases since 2001. Assuming the market remains closed to U.S. beef, 2005 consumption is expected to increase slightly to 64,700 mt (88,000 mt CWE) as the trade compensates for the absence of U.S. beef. Consumption is not expected to recover strongly because of high prices, increased concerns about food safety and constrained beef supplies. Prices of beef remain high because Australia and New Zealand are unable to fully make up for lost U.S. supplies. The burdens of high prices and short supplies will continue to cause heavy losses, especially in high-end restaurants. Total Taiwan economic losses from the beef ban are estimated at \$10 million and climbing.

Imports of beef variety meats were fully liberalized upon Taiwan's WTO entry. Without cumbersome bidding for quotas and with lowered import tariffs, imports of beef variety meats should grow robustly in coming years. Given the absence U.S. product in Taiwan, liberalization will likely boost the already strong position of suppliers from Australia and New Zealand, who already have the largest market shares.

The ongoing outbreak of Porcine Circovirus (PCV) continues to depress local swine production, keeping local pork prices high. This will likely stimulate pork meat imports although more than 95 percent of consumption is supplied locally. In the long term, Taiwan's relatively efficient swine industry will only contract slowly, continuing to produce pork for the local market while imports enter for processing or during period of high prices.

The demand for imported pork variety meats, which adds to the reduced local supply since the 1997 foot-and-mouth disease outbreak, is expected to remain strong for the foreseeable future. As Taiwan's current leading supplier of pork and pork offal, U.S. suppliers should benefit most from WTO market opening measures. Sanitary concerns are likely to keep key competitors, such as South Korea and Mainland China, off the market for several years.

**Note: This report assumes that there will be no changes in Taiwan's ban on imports of U.S. beef and livestock products.**

Exchange rate: approximately NT\$34.5=US\$1 in 2001, 2002 and 2003, roughly NT\$33.5=US\$1 in 1-6/2004.

## Beef

Table 1. Taiwan Beef Production, Supply and Distribution

PSD TABLE						
Country	Taiwan					
Commodity	Meat, Beef and Veal					
	2003	Revised	2004	Estimate	2005	Forecast
	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]
Market Year Begin		01/2003		01/2004		01/2005
Slaughter (Reference)	0	28	0	27	0	27
Beginning Stocks	0	0	0	0	0	0
Production	5	6	5	5	0	5
Intra EC Imports	0	0	0	0	0	0
Total Imports	98	98	85	81	0	83
TOTAL Imports	98	98	85	81	0	83
TOTAL SUPPLY	103	104	90	86	0	88
Intra EC Exports	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
TOTAL Exports	0	0	0	0	0	0
Human Dom. Consumption	103	104	90	86	0	88
Other Use, Losses	0	0	0	0	0	0
TOTAL Dom. Consumption	103	104	90	86	0	88
Ending Stocks	0	0	0	0	0	0
TOTAL DISTRIBUTION	103	104	90	86	0	88
Calendar Yr. Imp. from U.S.	22	22	0	4	0	0
Calendar Yr. Exp. to U.S.	0	0	0	0	0	0

The conversion factor used to derive the carcass weight equivalent (CWE) for beef in the above PSD table is 1.36. Beef variety meats imports are not included in the beef PSD table. The PSD table and Trade table include beef traded under HS 0201 and 0202. Trade of processed beef, under HS 021020 and 160250, are negligible (less than 300 mt).

## Production

Domestic beef, mostly from culled dairy cattle, meets only 5 to 6 percent of Taiwan's total beef demand. Total local beef production is expected to continue slowly contracting in 2004 and beyond.

## Consumption

The December 2003 detection of Bovine Spongiform Encephalopathy (BSE) in the United States and the resulting closure of the Taiwan market to U.S. products is expected to cut beef consumption by 17 percent in 2004 to 63,200 mt (86,000 mt CWE), reversing steady increases since 2001. Assuming the market remains closed to U.S. beef, 2005 consumption is expected to increase slightly to 64,700 mt (88,000 mt CWE) as the trade compensates for the absence of U.S. beef. Assuming there are no further BSE detections or other setbacks (such as another SARS outbreak), beef consumption is expected to rise in line with Taiwan's economic growth that is expected to reach 5.3 percent in 2004, 4.4 percent in 2005 and run between 4-5 percent thereafter. Moderate economic growth, the continued stability of the New Taiwan Dollar, continued public confidence in Taiwan's food safety system and pent up demand should support higher beef consumption in the future.

In 2004, consumption is expected to remain low because of high beef prices, dissatisfaction with the quality of non-U.S. beef supplies at the high end of the market and increased public concerns about food safety. Since the BSE discovery in the U.S., Taiwan prices for high-quality beef doubled while those for lower quality beef such as heel muscle or shank rose by 17 – 20 percent. High prices for lower grade beef have also discouraged imports out of fear that a sudden market reopening to U.S. beef would make previously imported non-U.S. beef much less valuable, exposing importers to major losses. These problems have put considerable pressure on Taiwan's HRI sector, which was the largest importer of high quality U.S. beef. This situation has been difficult for both high-end restaurants that rely on quality U.S. beef and less expensive establishments whose thinner margins are squeezed by high prices. Supplies continue to be limited by the tendency of New Zealand and Australia packing plants to sell their grain fed beef by the full set, which forces importers to dispose of unwanted cuts. Total Taiwan economic losses from the ban on U.S. beef are estimated at \$10 million and rising.

## Trade

In line with lower consumption, the BSE-related closure of the Taiwan market is expected to cut Taiwan's 2004 beef imports by 17 percent to 60,000 mt (81,000 mt CWE). Total 2005 imports are forecast slightly higher at 61,000 mt (83,000 mt, CWE). U.S. market share remained above zero in early 2004 because of "pipeline" beef imports of 634 mt. Since these shipments, virtually all other U.S. beef exports to Taiwan have been replaced by New Zealand product.

Beef imports from 2002 to the first half of 2004 are listed below:

**Table 2. Taiwan Beef Imports, 2002 - 2004 (mt)**

Supplying Source	U.S.	Canada	Australia	New Zealand	Panama	Nicaragua	Paraguay	Total
2002	<b>13,167</b>	3,604	33,227	14,703	329	0	25	<b>65,055</b>
-02 Share (%)	<b>20%</b>	6%	51%	22%	>1%	0%	>1%	
2003	<b>16,119</b>	2,050	31,713	21,854	320	9	0	<b>72,065</b>
-03 Share (%)	<b>22%</b>	3%	44%	30%	>1%	>1%	0%	
2004 (Jan-Jun)	<b>643</b>	0	14,444	17,467	311	120	0	<b>32,985</b>
-04 Share (%)	<b>2%</b>	0%	44%	53%	1%	>1%	0%	

Source: Board of Foreign Trade

Note: The most recent World Trade Atlas (WTA) data are only until Oct. 2003. The COA data are from Customs data, the same as WTA but may differ slightly.

As a result of the market closure to U.S. products, New Zealand became the largest beef supplier to Taiwan in 2004. Its market share rose from 30 percent in 2003 to 53 percent during the first half of 2004. Australia's market share remained at 44 percent because of short supplies caused by a serious drought and sharply higher domestic prices. Reportedly, Taiwan continues to have difficulties sourcing beef because local importers do not pay as much as the Japanese or South Koreans.

Supplies available from other sources remain very limited. Imports of beef and products from Canada were banned entry on May 21, 2003 in response to the Canadian Bovine Spongiform Encephalopathy (BSE) detection. Taiwan still bans imports from most EU countries. Although Taiwan has tried to source beef from Nicaragua and its sole FTA partner Panama, the quality of the beef from these origins is generally low. Although Taiwan's FTA with Panama allows free imports (no quantity limit, zero tariff) of beef beginning January 1 2004, Taiwan has only approved two packing plants. To avoid transshipments from other Latin American countries, imports from Panama also require a government-issued Country of Origin certificate with the ranch and packing plant locations listed. Cattle tag/tattoo numbers will also be required starting January 1, 2007. In July 2003, Nicaragua was approved to supply beef and products to Taiwan but only three packing plants have been approved.

### Beef Variety Meats

No further U.S. beef offal is expected to come into Taiwan in 2004 beyond the 65 mt that entered as pipeline shipments early in the year. BSE is likely to push down demand for beef variety meat imports to 3,200 mt in 2004. This forecast is higher than the previous forecast of 2,700 mt because of sharply increased shipments by New Zealand. Imports from new suppliers such as Nicaragua still are unable to ship offals that meet Taiwan importer specifications. Honeycomb and tendon account for the majority of Taiwan's beef offal imports, unlike other Asian markets that import mainly tongues and intestine.

Prices are expected to hold fairly steady for beef offals in Taiwan. Since Taiwan is one of the world's largest honeycomb importers, supplies are contracted for in advance and mostly come from Australia and New Zealand. However, as Japanese and Korean consumers keep shying away from all beef consumption, there may be some overstock of beef offal in Australia or New Zealand which may reduce prices for these products.

In the long run, offal imports should remain strong because local demand exceeds supply. However, Australia and New Zealand will likely continue taking the largest market shares because of their close proximity to Taiwan. Since offals are a lower cost product than muscle meat, lower transport costs from the antipodes will give their suppliers a major advantage in the Taiwan market.

Imports of beef offal, once subject to an import quota, were liberalized on January 1, 2002 in line with Taiwan's accession to the World Trade Organization (WTO). Offal imports are not included in the beef PS&D table.

**Table 3. Taiwan Beef Offal Imports, 2002 and 2003 (mt)**

Supplying Source	U.S.	Canada	Australia	New Zealand	Others	Total Imports
2002	719	264	2,108	766	32	3,856
-02 Share (%)	19%	7%	55%	20%	<1%	
2003	698	117	1,836	772	25	3,448
-03 Share(%)	20%	3%	53%	22%	<1%	
2004 (Jan-Jun)	65	2	850	708	41	1,666
-04 Share(%)	4%	<1%	51%	42%	3%	

Source: Board of Foreign Trade

Offal imports are not included in the PS&D table.

### Tariffs & Trade Policy

The duty for beef products is NT\$10 per kilogram, ending a market advantage for some U.S. exports. Starting January 1, 2004, the Taiwan ended a small preferential tariff formerly given to Special Quality Beef (SQB), defined as USDA-graded prime or choice beef and Canadian AAA beef. Another preferential tariff for muscle meat such as shin, shank, short plate, brisket, ribs, and rib finger classified as shin/shank/intercostal (s/s/i) cuts also ended at the same time. On the other hand, falling duties are expected to increase overall trade, especially in shoulder cuts or products customized for the Taiwan market.

The tariff for beef offals is now 15 percent, ending a series of reductions starting upon Taiwan's WTO accession. Import tariffs for beef offal formerly ranged from 20 to 50 percent. Tariffs for frozen bovine bones will be gradually reduced from 35 percent in 2004 to 30 percent in 2007. The rate will be 34 percent in 2005, 32 percent in 2006 and 30 percent in 2007. The tariff rate for fresh or chilled bovine bones will remain at 35 percent.

**Table 4. Tariff Comparison for Beef and Beef Offal**

<b>Beef Category/Year</b>	2001 (Pre-WTO)	2002	2003	<b>2004</b>
<b>Special Quality Beef</b>	NT\$22.1/kg	NT\$20/kg	NT\$15/kg	<b>NT\$10/kg</b>
<b>Non-SQB</b>	NT\$27/kg	NT\$24/kg	NT\$17/kg	<b>NT\$10/kg</b>
<b>SQB-S/S/I</b>	NT\$23.8/kg	NT\$23.8/kg	NT\$16.9/kg	<b>NT\$10/kg</b>
<b>Beef Variety Meats</b>	20-50%	20-25%	17.5-20%	<b>15%</b>
<b>Bovine Bones</b>	50%	35%	35%	<b>35%</b>

### Sanitary Regulations

In order to export beef or any meat to Taiwan, a country's quarantine inspection and health certification system must be reviewed and approved by the Taiwan authorities. Currently, the only countries eligible to supply beef or beef variety meats to Taiwan are: Australia, New Zealand, Panama, Nicaragua, Honduras and Sweden. Although Taiwan accepted Japan's FMD-free status in late 2001, entry is still banned along with U.S., Canadian and most types of European beef because of BSE.

Until the December 24 2003 BSE detection in the U.S., Taiwan consumers did not associate beef consumption with BSE -- unlike some neighboring economies. While earlier press coverage was rational and short-term, the negative effects since December will probably take a few years to reverse.

Imports of beef and products from the United States and Canada were suspended on December 24 and May 21, 2003 respectively, in response to single BSE detections in each country. New Zealand and Australia are expected to take North America's entire market share as long as the bans stay in place.

### The Dairy Sector

The profitable dairy industry is expected to contract slowly following the removal of the fluid milk import ban after WTO entry (see Taiwan Dairy Annual TW3040). The increasing acceptance of long-life (UHT or ultra high temperature pasteurization) will increase competition for locally sourced fresh milk. The stable market for fluid milk and the limited market share of competing milk powder will also slow the contraction of local production.

### Marketing

Although demand for beef fell sharply after December 2003, industry sources believe that consumer concerns about the safety of U.S. beef in the aftermath of BSE can be resolved. However, this process of assuring the public about the safety of beef has been set back as suppliers from other countries have taken advantage of this situation. For example, many restaurants continue to post signs supplied by U.S. competitors saying they only use only Australian or New Zealand beef.



The U.S. BSE detection has interrupted U.S. imports to Taiwan, forcing local restaurants to find alternative suppliers, pay higher prices and switch to different menu items. This impact has fallen most heavily on the high-end restaurants that were traditionally the largest buyers of U.S. beef. These establishments often built brands based on U.S. beef, although some restaurants have learned to partially compensate for the lack of U.S. product. They will have difficulties adjusting to short U.S. supplies since supplies of high-quality Australia and New Zealand beef are insufficient to meet demand.

## Swine

Table 5. Taiwan Swine Production, Supply and Distribution

PSD Table						
Country	Taiwan					
Commodity	Animal Numbers, Swine				(1000 HEAD)	
	2003	Revised	2004	Estimate	2005	Forecast
	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]
Market Year Begin		01/2003		01/2004		01/2005
TOTAL Beginning Stocks	6794	6794	6779	6779	6800	6800
Sow Beginning Stocks	795	795	812	812	0	820
Production (Pig Crop)	10000	10273	10300	10300	0	10500
Intra EC Imports	0	0	0	0	0	0
Total Imports	0	0	0	0	0	0
TOTAL Imports	0	0	0	0	0	0
TOTAL SUPPLY	16794	17067	17079	17079	6800	17300
Intra EC Exports	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
TOTAL Exports	0	0	0	0	0	0
Sow Slaughter	0	0	0	0	0	0
OTHER SLAUGHTER	9430	9460	9500	9500	0	9500
Total Slaughter	9430	9460	9500	9500	0	9500
Loss	585	828	779	779	0	900
Ending Inventories	6779	6779	6800	6800	0	6900
TOTAL DISTRIBUTION	16794	17067	17079	17079	0	17300
Calendar Yr. Imp. from U.S.	0	0	0	0	0	0
Calendar Yr. Exp. to U.S.	0	0	0	0	0	0

Table 6. Taiwan Pork Production, Supply and Distribution

PSD TABLE						
Country	Taiwan					
Commodity	Meat, Swine					
	2003	Revised	2004	Estimate	2005	Forecast
	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]	USDA Official [Old]	Post Estimate [New]
Market Year Begin		01/2003		01/2004		01/2005
Slaughter (Reference)	9430	9460	9500	9500	0	9500
Beginning Stocks	0	0	0	0	0	0
Production	890	893	895	895	0	895
Intra EC Imports	0	0	0	0	0	0
Total Imports	54	54	60	78	0	70
TOTAL Imports	54	54	60	78	0	70
TOTAL SUPPLY	944	947	955	973	0	965
Intra EC Exports	0	0	0	0	0	0
Total Exports	0	0	0	0	0	0
TOTAL Exports	0	0	0	0	0	0
Human Dom. Consumption	944	947	955	973	0	965
Other Use, Losses	0	0	0	0	0	0
TOTAL Dom. Consumption	944	947	955	973	0	965
Ending Stocks	0	0	0	0	0	0
TOTAL DISTRIBUTION	944	947	955	973	0	965
Calendar Yr. Imp. from U.S.	22	22	25	33	0	28
Calendar Yr. Exp. to U.S.	0	0	0	0	0	0

The conversion factor used to derive pork meat to carcass weight equivalent (CWE) is 1.43. Imports of pork bones are also included in the PSD Table at a conversion factor of 1.0. Imports of pork variety meats (offal) are not included in the PSD table. This report includes pork trade under HS 0203. Trade of processed pork, under HS 021011, 021012, 021019, 160241 and 160242, has been negligible (below 500 mt).

## Production

In 2004, swine production (fat pigs slaughtered) is estimated to grow less than one percent to 9.5 million head. This is down 6 percent from the post-FMD outbreak peak of 10.1 million head in 2001 but above Council of Agriculture (COA) "target" production of 9.3 million. The most recent pig inventory survey conducted in May 2004 was not available because of a typhoon that disrupted data collection. Despite ongoing attempts to increase herd size in response to high prices, production continues to be limited by a persistent outbreak of Porcine Circovirus Infection (PCV), which has high mortality in pigs weighing between 15 to 30 kg. When and if Taiwan gets PCV under control, high prices are expected to result in a larger number of breeding and standing pigs.

Post forecasts a total 2005 slaughter of 9.5 million. Production will not rise from 2004 despite high local pork prices because of disease, high feed prices, the imminent liberalization of competing imports and the continuing closure of the once-lucrative Japan export market. Farmers may also be reluctant to expand production too quickly in order to keep prices high. To prevent an oversupply of pork, Council of Agriculture has been continuously urging farmers not to expand production too quickly.

**Table 7. Taiwan Hog Population Data**

	May 2002	Nov. 2002	May 2003	Nov. 2003	May 2004
No. of farms	12,931	13,054	13,022	13,154	NA
Pigs on farm	6,920,763	6,793,941	6,747,658	6,778,799	NA
Boars	36,640	36,572	36,586	36,697	NA
Sows/gilts	800,603	795,480	797,769	811,909	NA
Sows	720,911	711,136	717,395	720,055	NA
Gilts	79,692	84,344	80,374	91,854	NA
Fattening pigs	6,083,520	5,961,889	5,913,303	5,930,193	NA
Piglets	1,061,922	999,256	1,027,807	987,312	NA
Under 30 kg	1,795,175	1,664,814	1,734,710	1,710,097	NA
30-60 kg	1,632,069	1,639,748	1,582,556	1,610,840	NA
Above 60 kg	1,594,394	1,658,071	1,568,230	1,621,944	NA

Source: Council of Agriculture

## Long-Term Trends

In the long term, the largely efficient Taiwan swine industry will continue to produce pork for the local market, with imports mainly used for processing or to supplement occasional shortfalls. Pork production will likely eventually stabilize because of Taiwan's relatively cost-competitive structure, with current production costs estimated at 1.2 to 1.7 times North American and European levels. Although pessimists feared that total herd size would quickly fall to 6.0 million, it seems more likely to stabilize at 6.5 million in the next 3-4 years.

The decline of Taiwan's swine sector is expected to continue because several factors:

1. Realization that export markets lost because of Taiwan's 1997 Foot and Mouth Disease (FMD) outbreak will not recover fully in the near term.
2. Continuing high feed prices, which have increased interest in importing feedstock from new origins (such as corn from the PRC).
3. Increasing post-WTO accession import competition, especially from imported offals, which will be liberalized in 2005.
4. Rising environmental pressures (especially waste disposal) that will increase costs of production. Note: Although Taiwan's Environmental Protection Administration relaxed Taiwan's pig wastewater standards at the request of COA, the long-term trend is still toward stricter regulation.
5. Retirements of elderly farmers.
6. Increasing pressure to divert land to more valuable uses.

The most serious problem facing Taiwan's swine industry is the loss of export channels resulting from the 1997 FMD outbreak. Before 1997, Taiwan was a net exporter of prime pork meat to Japan while the remaining offal was consumed domestically. The FMD outbreak caused massive losses from suddenly closed export markets and the costs of depopulating 30 percent of the swine population (3.8 million head). The number of swine farms fell by almost half from 25,300 in 1997 to 13,000 in 2002, with smaller farms failing the most often. Despite this contraction, 43 percent of total farms still have less than 100 head while 25 percent have less than 20. The large number of small farms and aging farmers point to continuing consolidation in the swine sector. Most swine production is concentrated in the southwest part of Taiwan in Pingtung, Yunlin, Changhua and Tainan Counties.

Although Taiwan has been FMD-free since 2001 and was declared FMD-free in 2003 with vaccination by the Office International des Epizooties (OIE), exports are not likely to recover to pre-1997 levels. At the earliest Taiwan might be able to export pork to Japan in 2006 if it can avoid another FMD outbreak. Progress will be especially slow since Japan will only accept imports from countries that are FMD-free without vaccination, which can only come after a region has been FMD free for a year without vaccination. Even if Taiwan does resume exports, it is very unlikely that trade will return to pre-1997 levels because of the disruption in marketing channels and a loss of positive consumer awareness in Japan. The most optimistic estimate is that Taiwan will export 80-100,000 mt by 2007 -- which is down sharply from 270,000 mt in 1996. In addition, hard-won access to foreign markets will remain tenuous because of possible FMD or other disease introductions caused by contraband imports of Chinese swine.

Pig farms have also suffered because of price competition. Post-WTO offal imports have cut offal prices by as much as half, forcing pork meat exporters to raise their prices, further reducing their competitiveness. This has created a growing realization that exports will not return to pre-FMD levels, which is causing farmers to stop swine production. Farmers are also aging rapidly, which will also likely reduce the number of farms, especially smaller facilities. After consolidation, production costs should be even lower than at present, leaving

the remaining farms more competitive. This contraction in domestic production and the ongoing consolidation of small farms will likely result in increased long-term import demand for pork meat and offal.

### Prices

Pig prices are expected to remain high through 2004 because limited production of some minor substitution for beef (BSE) and poultry (bird flu) in the face of limited domestic supplies. Pig auction prices rose to a yearly high of NT\$6,000/100 kg (US\$179/100 kg) in July 2004. Although high prices and an eventual reduction in PCV may boost herd sizes in 2005, any production increase will likely be very limited.

**Table 8. Taiwan Pig Auction Prices (NT\$/100 kg)**

YEAR/MONTH	PRICE
<b>CY 2001</b>	<b>3,982</b>
<b>CY 2002</b>	<b>4,336</b>
<b>CY 2003</b>	<b>5,317</b>
Jan 2004	5,776
Feb 2004	5,982
Mar 2004	5,810
Apr 2004	5,696
May 2004	5,606
Jun 2004	5,994
<b>July 2004 (est)</b>	<b>6,000</b>
<b>CY 2004 (Ave)</b>	<b>5,838</b>

Source: Livestock Monthly & Other Industry Sources

Exchange rate: approximately NT\$34.5=US\$1 in 2001, 2002 and 2003, roughly NT\$33.5=US\$1 in 1-6/2004.

In 2003 (the latest available data), the break-even point for hog production was slightly more than NT\$4,720/100 kg live weight, the highest level in years. The direct cost of hog production was NT\$3,898/100 kg in 1999, NT\$3,676/100 kg in 2000, NT\$3,800/100 kg in 2001 and NT\$4,000/100 kg in 2002. (Source: Animal Technology Institute, Taiwan) High feed and piglet prices resulting from PCV were responsible for the high costs. Taiwan farmers tend to keep the pigs longer (about 6.5 months) on farm than their U.S. counterparts. The average weight for slaughter pigs has remained at 110 kg/head for years. Profits per head were equivalent to NT\$1,010 (US\$29.9), which is well above the NT\$358 (US\$11.0) per head in 2002.

**Table 9. CY2003 Production Cost of Hogs (NT\$ per head)**

CATEGORY	NT\$ PER HEAD	NT\$ PER 100 KG
Production cost	5,192	4,720
- Feeder pigs	1,172	1,065
- Feed	3,211	2,920
- Other (labor, medicine, materials, rent, etc.)	809	735
Gross income	6,248	5,680
Profits	1,055	960

Source: Council of Agriculture

Exchange rate: roughly NT\$34.5=US\$1 in 2003

Average Sale Weight is 110 kg

## Consumption

The substitution of pork for beef and poultry, is expected to push Taiwan's 2004 pork consumption to 973,000 tons, the highest level since 2001. Consumption in 2005 is expected to fall only slightly to 965,000 tons as beef consumption increases slightly. In most years, demand tends to be stable, moving in a box between 940,000 to 970,000 tons. The very limited (less than 3 percent) substitution of pork for other meats indicates that they are not close substitutes in the Taiwan market. Taiwan's pork consumption is around ten times as large as its beef consumption. The latter also tends to be more specialized in the HRI sector. Changes in relative prices or availabilities only slightly affect beef demand relative to pork -- or vice versa.

## Trade

Spurred by continued high Taiwan prices, pork meat imports are expected to reach 78,000 tons (CWE) in 2004 and 70,000 tons (CWE) in 2005. The PCV outbreak kept prices high and stimulated imports totaling 54,000 tons (CWE) in 2003. U.S. market share is expected to increase slightly to 42 percent in 2004 and remain around 40 percent in 2005.

Unlike beef, the vast majority (96 percent from 2002-3) of pork meat consumed in Taiwan is produced domestically. Although post-WTO liberalization and high Taiwan pork prices have sharply increased pork meat imports in 2002-4, total volumes relative to consumption remain low. Given the competitiveness of Taiwan pork production, trading volumes and market shares are very sensitive to price and imports and mostly exist on the margin. According to industry sources, imports can rise above 3,000 tons per month if Taiwan pig auction prices rise above NT\$5,000/100 kg, a situation expected to last into 2005. On the other hand, high export prices can sharply cut trade – even if Taiwan has high prices. For example, if prices of imported products exceed 38 cents/pound, imports will fall by more than half, to around 1,400 tons per month.

As another indicator of this market's extreme price sensitivity, U.S. market share suffered major losses in 2003 because of high U.S. prices and lower prices in Canada. During that time, Canada more than doubled its market share over two years at the expense of the U.S. However, in first half 2004, high Taiwan pig prices and low U.S. prices made U.S. pork very competitive. In the latter half of 2004, Taiwan prices are expected to remain high but U.S.

prices have also risen sharply, making it less competitive. For example, U.S. pork prices have risen to US\$70/100 lb from US\$40 in early 2004.

In contrast, pork offal demand will likely remain strong in 2004 and beyond as processors find new ways to utilize variety meats. The offals TRQ will likely be fully utilized in 2004. As a result of high prices in 2003, the U.S. lost offals market share to Canada and European suppliers. In 2004, the U.S. has regained market share as packers modified their production specifications in order to restore their dominant position in the Taiwan market.

**Table 10. Taiwan Pork Meat Imports, 2002 - 2004 (mt)**

Country	U.S.	Canada	EU*	Hungary	Australia	Total
2002	<b>11,470</b>	7,694	196	0	61	<b>19,421</b>
-02 Share (%)	<b>59%</b>	40%	1%	0%	<1%	
2003	<b>14,232</b>	15,621	1,354	1,074	364	<b>32,645</b>
-03 Share (%)	<b>44%</b>	48%	4%	3%	1%	
2004 (Jan-Jun)	<b>13,662</b>	11,450	681	399	67	<b>26,258</b>
-04 Share (%)	<b>52%</b>	44%	3%	2%	<1%	

Source: Directorate General of Customs, Ministry of Finance

- \*Denmark/Sweden
- Trade data do not distinguish between imports in and out the TRQs. However, out-of-quota imports are negligible.
- The most recent World Trade Atlas (WTA) data are only until Oct. 2003. The COA data are from Customs data, the same as WTA but may differ slightly.

### Products Entering Under TRQs

Total 2003 TRQ imports were 10,104 tons for pork belly and 18,192 tons for pork offal. (Source: Central Trust of China). Country breakdown for TRQ imports are given below. High Taiwan pork prices and depressed production points to high imports of both pork offal and pork bellies in 2004. Pork belly imports are expected to exceed 15,000 tons in 2004 while offals imports will reach likely 26,000 tons in 2004. However, the TRQs may end up exceeding local demand, impeding TRQ fill in 2004 (especially for pork bellies) if Taiwan pig prices fall. COA estimates demand for imported bellies at 10,000 tons and offals at 20,000 tons, but this figure assumes lower pig prices than current levels.

Outside the TRQ, both pork bellies and pork offal are subject to special safeguards (SSG), which allow higher (up to 33 percent) duties under the WTO Agreement on Agriculture. The 2004 high out-of-quota duty (50 percent for pork bellies and 265 percent for pork offal) will strongly discourage any imports after quota is filled, let alone the SSG duty surcharge. However, in 2005, the high out of quota duties will be replaced by a 15 percent duty.



**Table 11. Pork Belly Imports under TRQ**

	U.S.	Canada	Australia	Denmark	Sweden	Hungary	Total Imports	TRQ Size (Annual)
2002	2,431	1,635	60	914	0	0	5,040	6,160
2003	4,217	4,203	172	103	756	653	10,104	10,780
2004 (Jan-Jun)	4,727	2,824	57	297	358	382	8,645	15,400

Source: Directorate General of Customs, Ministry of Finance

The pork belly fill rate was 94 percent in 2003, with the US and Canada each taking 42 percent market share. Because of high pork prices, the pork belly TRQ will likely be completely filled in 2004.

**Table 12. Pork Offal Imports under TRQ**

Year /Country	U.S.	Canada	Australia	Denmark	Other	Sweden	Hungary	Total Imports	TRQ Size (Annual)
2002	7,703	1,138	70	617	28	0	0	9,556	10,000
2003	12,016	3,483	507	1,244	22	155	765	18,192	18,750
2004 (Jan-Jun)	7,461	3,788	246	1,150	47	220	560	13,472	27,500

Source: Directorate General of Customs, Ministry of Finance

In 2003, the demand for pork offal was very strong, resulting in almost complete TRQ utilization (97 percent). Belly spare ribs (soft ribs) continue to be the most popular item in the belly quota. The demand for pork belly was lower but the fill rate was boosted to 94 percent by high domestic pig prices. Pork offal imports are not included in the PS&D table. In 2003, the fill rate for pork offal TRQ was 97 percent. The U.S. share was 66.1 percent and the Canadians took 17.5 percent. Pig stomachs continued to be the most popular offal item, although they are processed differently than in the western world. U.S. suppliers should remain competitive in this sector because they are more experienced than other suppliers in meeting the Taiwan specifications. However, the trade has been exploring other items, such as trimmings, hind legs, cheek meat and rectum. Reportedly, European suppliers, especially Denmark, are very price competitive in the non-stomach items.

Pork bone imports in 2004 are estimated at about 7,000 mt, the same level as 2003. Pork bone imports from January to April 2004 have totaled 2,120 mt and include 653 tons from Canada, 690 tons from the U.S., 254 tons from Denmark, 71 tons from Sweden, 99 tons from Australia and 353 tons from Hungary. Trade in pork bones in 2003 of 7,129 tons was up sharply from 2002 levels of only 943 mt. Imports included 3,437 tons from Canada, 595 tons from Denmark, 296 tons from Sweden; 484 tons from Australia, 510 tons from Hungary -- and 1,807 tons from the U.S.

## Policy

Upon Taiwan's WTO accession, the former global quotas for pork bellies and pork offal were transformed into Tariff Rate Quota (TRQ). In 2004, the quotas sizes are 15,400 mt for bellies and 27,500 mt for offal. Tariff rates were also lowered with WTO entry. In 2004, quotas for pork bellies and pork offal increased and tariff rates declined as detailed in Table 12. In 2005, the TRQs will be phased out and duties bound at 12.5 percent for pork meat and 15 percent for pork offal. However, SSG duties will come into effect when trigger levels are reached.

**Table 13. Taiwan Pork Belly and Pork Offal TRQ**

	Pork Bellies			Pork Offal		
	2002	2003	2004	2002	2003	2004
<b>Tariff Rate (%)</b>	15	13.7	<b>12.5</b>	25	20	<b>15</b>
<b>TRQ Qty. (mt)</b>	6,160	10,780	<b>15,400</b>	10,000	18,750	<b>27,500</b>
<b>Out-of-Quota Rate (%)</b>	60	55	<b>50</b>	310	287.5	<b>265</b>

All TRQ items have been moved to a new Chapter 98 of Taiwan's Tariff Schedule. Pork products not subject to TRQ or enter outside of the TRQ (and are subject to out-of-quota rates) are classified under the original tariff classifications in Chapter 2 (for uncooked meat), Chapter 5 (for animal offal) and Chapter 16 (for processed meat). TRQs are open to all WTO members meeting Taiwan's quarantine requirements, except products from the People's Republic of China, which are banned.

## TRQ Regulations

Taiwan 2004 TRQs total 15,400 mt for pork bellies and 27,500 mt for offals. Unlike in earlier years, around half of the 2004 TRQ was allocated to importers based on previous two years' import record. This removed much of the uncertainty from the quota distribution process and will help importers make better long-term plans. The remaining TRQ for pork belly was allocated through an auction. Importers or exporters registered with Taiwan's Board of Foreign Trade are eligible to apply.

**Table 14. TRQ Allocations for Pork Products (mt)**

	BASED ON RECORD	AUCTIONED	TOTAL
<b>Pork Belly</b>	8,470	6,930	<b>15,400</b>
<b>Pork Offal</b>	14,375	13,125	<b>27,500</b>

Quotas are tradable. Under the terms of Taiwan's WTO accession agreement, TRQ certificates are valid from January 1 to September 1 and can be extended to December 31 upon presentation of a signed contract. Arrival dates can be postponed to December 31, 2004 if a signed contract is presented to the Central Trust of China (CTC) before the deadline.

(application made to CTC from August 1 to 25, 2004). Unused TRQs will be reallocated in September.

### Non-TRQ Duties

Effective January 1, 2002, Taiwan redefined "pork offals" to include only hocks, feet, skirt, guts (including intestines and rectum) and stomachs. Remaining pork variety meats were liberalized with WTO entry. Items such as kidneys, tails and hearts no longer require a quota and are effectively liberalized.

The out-of-quota rates for pork bellies fell to 50 percent in 2004 while the out-of-quota rates for pork offal fell to 265 percent in 2004. Imports for both products will be liberalized in 2005 and tariffs for all pork offals will go down to 15 percent. A tariff comparison for other pork products not subject to TRQ is listed below:

**Table 15. Tariff Comparison for Pork Imports Not Subject to TRQs (%)**

Pork Category/Year	2002	2003	2004
Carcass, Hams, Shoulders and Cuts	15	13.7	12.5
Other Pork Cuts	14	13.2	12.5
Non-TRQ Variety Meats	25	20	15
Pork Bones	35	35	35
Pork Tendon*	25	20	15

\* Imports of pork tendon were liberalized in 2002 upon WTO entry, meaning that quota certificates are no longer required. However, the import duty for this item was raised from 15% to 25% in 2002. To Post's knowledge, this is the only agricultural item dutiable at a higher rate after Taiwan's WTO accession.

### Special Safeguards

Both pork bellies and pork offal are subject to a Special Safeguards (SSG) regime, based on Article 5 of the WTO Agreement on Agriculture. Under the SSG, Taiwan can add a 33 percent duty surcharge when import volume surge above a trigger volume or if local prices fall below a trigger price determined before WTO accession. Taiwan has calculated its volume trigger levels at 125 percent of the TRQ. 2004 pork belly price trigger remains NT\$30/kg. Note: SSG does NOT apply to any imports entering under a TRQ.

**Table 16. TRQ Volume Triggers (mt)**

Pork Category/Year	2003 Trigger	2003 TRQ	2003 actual TRQ imports	2004 Trigger	2004 TRQ
Pork Belly	13,475	10,780	10,104	19,250	15,400
Pork Offal	23,437	18,750	18,192	34,375	27,500

Source: Council of Agriculture

Taiwan's demand for pork offal is strong and stable. The TRQ for pork offal should be completely filled in 2004. With imports being liberalized and TRQ removed in 2005, pork offal imports are expected to continue increasing.

All most pork items currently entering under TRQs will be liberalized on January 1, 2005 at tariff rate 12.5 percent. Simultaneously, all pork offals will be subject to a 15 percent tariff. The tariff for pork bones, fresh, chilled or frozen, will remain at 35 percent.

Although demand for pork offal is strong, the high out-of-quota duty will strongly discourage imports above the TRQ level until it ends in 2005. Lower out-of-TRQ duties make it possible but still unlikely that pork bellies will exceed SSG trigger levels in 2004. Although liberalization in 2005 could trigger SSG duties, some industry sources do not believe import demand will be strong enough to trigger this response.

### **Sanitary Regulations**

In order to export meat to Taiwan, a country's meat quarantine inspection and health certification system must be reviewed and found acceptable by the Taiwan authorities. Taiwan currently allows imports of pork/pork offal from the United States, Canada, Australia, New Zealand, Japan, Hungary, Denmark, Finland and Sweden. A Dutch request to export pork to Taiwan in 2001 was rejected after a European Foot-and-Mouth Disease (FMD) outbreak although other EU countries have applied for import permission. Korea's application for FMD-free recognition was also denied in December 2001. South Korean pork offal could be potentially very competitive if allowed entry. Paraguay was also disqualified in 2002 because of FMD.

Countries not currently approved to export meat products to Taiwan must formally apply for approval. The approval process requires bilateral negotiations and on-site inspections of production and processing facilities, which can take several years to complete. FMD concerns are likely to keep competitive South Korean pork products off the Taiwan market for at least two-to-three years. Disease problems complicated by cross-strait political issues will likely keep PRC pork off the Taiwan market for an extended period (see below).

### **Cross-Straits Trade and Investment**

Currently Mainland Chinese pork, pork offals, and pork products are banned entry into Taiwan. Taiwan is expected to gradually relax these administrative controls, but the Mainland will still face SPS hurdles in exporting to Taiwan. Continuing animal disease problems in the PRC make exports of most animal products to Taiwan very unlikely. Even if permitted, imports from the Mainland would face other barriers such as the lack of a working relationship between China and Taiwan's quarantine services and the lack of direct shipping routes. Taiwan authorities have also banned investment by Taiwan companies in Mainland livestock and meat packing operations although there may well be covert investment in these sectors.

### **Marketing**

Since pork meat demand in Taiwan depends so strongly on the prices of locally produced pork, export prospects for pork meat can vary greatly from year to year. When Taiwan does import, buyers prefer carcasses because U.S. cuts are different from what is used in Taiwan. In addition, competitors sometimes give rebates disguised as "promotion", which can

undermine U.S. competitiveness. Note: Offals for retail sale mostly go through wet markets rather than supermarkets.

### Internet Resources

Taiwan's tariff schedule is available at <http://www.doca.mof.gov.tw>. After Taiwan's accession to the World Trade Organization (WTO) on January 1, 2002, a new chapter, Chapter 98, was established in Taiwan's Customs Tariff Schedule to cover all products that are permitted entry under Tariff Rate Quota (TRQ). However, this chapter is used to tabulate current tariff rates and trade restrictions for the TRQ items. Actual trade statistics are available at <http://www.trade.gov.tw>. Most Taiwan (.tw) domain websites are only in Chinese, but the amount of English content is increasing.

<http://www.coa.gov.tw/english/index.htm> for agricultural statistics and general agricultural information (in English).

<http://www.baphiq.gov.tw> for Taiwan quarantine requirements (English version available).

<http://www.trade.gov.tw/english/index.htm> for trade statistics, trade rules, TRQ bidding rules and general trade information (English version available).

<http://www.wto.org> The WTO's website for information about Taiwan's WTO accession.

<http://www.docamof.gov.tw> for tariff reduction schedule (soon in English) and TRQ implementation measures.

<http://www.ctoc.com.tw> for Central Trust of China's TRQ announcement (Chinese only).

<http://www.dgoc.gov.tw> for Special Safeguards application (Chinese only).

<http://www.naif.org.tw> for pig auction prices and pork retail prices (Chinese only).